

REMARKS

This Amendment is responsive to the Office Action mailed on September 11, 2007. Claims 1, 3, 7, 9, 10, and 12 are amended. Claims 2, 6, and 8 are cancelled. Claims 1, 3-5, 7, and 9-20 and 22-27 are pending.

Claims 1-20, 22, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arnegger (US 4,513,742) in view of McDaniel (US 5,423,845).

Claims 23-26 are rejected under 35 U.S.C. § 102(a) as being unpatentable over Arnegger in view of McDaniel, in further view of Gerber (US 4,653,373).

Applicant respectfully traverses these rejections in view of the amended claims and the following comments.

Discussion of Amended Claims

Claim 1 is amended to include the subject matter of claims 2, 6, and 8. Claim 1 is further amended to specify that the teeth are tetrahedral (see, e.g., Applicants' specification, page 9, line 25). Claim 1 is also amended to specify that the recesses extend between lateral sides of the holder body (see, e.g., Applicants' Figure 2).

Claims 2, 6, and 8 are cancelled.

The dependencies of claims 3, 7, 9, 10, and 12 are amended accordingly.

Discussion of Prior Art

According to Applicants' amended claim 1, the teeth are tetrahedral. It is a known problem with tetrahedral teeth to be able to remove the cuttings from the cutting area, as the space between the teeth is quite small because of the tetrahedral shape of the teeth (see, e.g., figure 2 of the present application).

Arnegger does not disclose or remotely suggest tetrahedral teeth. As can be from figures 2, 5 and 9 of Arnegger, the teeth have the shape of a triangle prism and are provided with recesses. The problem of removing cuttings that arises with tetrahedral teeth does not exist for such triangle prism shaped teeth disclosed in Arnegger.

McDaniel discloses a blade with teeth 54 and 58. The teeth lie in a first row (Col. 4, lines

14, 15). The teeth 54 have a triangular cross-section and a base which lies on surface 76 and have two parallelogram-shaped side surfaces 82 and 84 (Col. 4, lines 44 - 47; figure 4). Accordingly, McDaniel does not disclose or suggest a row of all tetrahedral teeth. McDaniel expressly states that the teeth are arranged with comparatively large spaces between adjacent teeth (Col. 4, lines 21 - 24). This arrangement of McDaniel guides cuttings generated by the teeth towards the flat surface and outwardly (Col. 4, lines 27 - 29). However, the disadvantage of the teeth arrangement of McDaniel is that the cutting performance is in principal lower because of the large spacing between the teeth.

With the present invention, tetrahedral teeth formed with a first tooth flank, second tooth flank and a third tooth flank in the vicinity of the tip of a tooth are provided resulting in a high cutting performance. The problem of guiding cuttings away is solved with the present invention by providing channels, which are formed between adjacent teeth and which extend behind the tooth base and are connected with at least one recess being a holder body channel extending along the row of teeth. Thus, the channels in accordance with the present invention comprise the usual space between teeth and an additional part extending behind the tooth space of the teeth and connected with a recess.

With such a design, the advantages of the tetrahedral teeth can be obtained with an advantageous guiding away of cuttings.

In addition, in Applicants' amended claim 1, the recesses are defined as extending between lateral sides of the holder body. The Examiner equates the apertures 43 in Figure 8 of Arnegger as recesses (Office Action, page 2). As can be seen from Figure 8 of Arnegger, the apertures 43 of Arnegger are not recesses extending between lateral sides of a holder body, at least one of which recesses is a holder body channel extending along a row of teeth, as set forth in Applicants' amended claim 1. Rather, in Arnegger, the recesses 43 extend between upper and lower sides of the holder body. Further, as can be seen from Figure 8 of Arnegger, the recesses 43 of Arnegger are not connected to a channel formed between adjacent teeth, as claimed by Applicants in amended claim 1.

Further, McDaniel does not disclose or remotely suggest that channels extend behind the tooth base of adjacent teeth and are connected with at least one recess, that recess being a holder

body channel and extending along the row of teeth, as claimed by Applicants.

It is to be noted that with Applicants' amended claim 1, by providing a channel extending behind the row of teeth, the teeth themselves do not have to be modified for guiding away cuttings. Accordingly, with Applicants' claimed invention, a high cutting performance can be achieved using tetrahedral teeth.

Arnegger and McDaniel are to the contrary. As can be seen from figures 2, 5 and 9 of Arnegger, the teeth themselves have recesses. Also, the teeth arrangement of McDaniel is modified for guiding away cuttings.

Accordingly, the combination of Arnegger and McDaniels does not disclose or remotely suggest all the features of Applicants' amended claim 1.

Applicant respectfully submits that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Arnegger, taken alone or in combination with any of the other prior art of record.

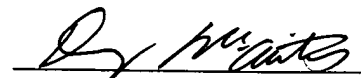
Further remarks regarding the asserted relationship between Applicant's claims and the prior art are not deemed necessary, in view of the amended claims and the foregoing discussion. Applicant's silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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